

# **BOUNDARY SCAN CELL AND METHODS FOR INTEGRATING AND OPERATING THE SAME**

## **ABSTRACT OF THE DISCLOSURE**

An apparatus for performing a boundary scan test is provided, along with method for integrating and operating the same. The apparatus includes an asynchronous flip-flop that has a data input, a data output, a system clock input, a set input, and a reset input. The apparatus also includes a test controller that has a test clock input, a first test data output, and a second test data output. The first test data output of the test controller is connected to the set input of the asynchronous flip-flop. In addition, the second test data output of the test controller is connected to the reset input of the asynchronous flip-flop. The test controller is configured to control the asynchronous flip-flop through the set input and the reset input. The apparatus for performing the boundary scan test avoids introduction of adverse delay and skew effects caused by multiplexing circuitry.